Remarks

The Applicants would like to thank the Examiner for participating in the interview with the Applicants' representative on August 12, 2009. The features of independent Claims 15 and 26, as well as the cited references, were discussed. The Applicants additionally thank the Examiner for the helpful comments related to the distinguishing features of the independent claims.

The Applicants have amended Claims 15 and 26, support for which may be found at least in paragraphs [0014], [0021], [0023], and [0025] of the originally-filed Specification. No claims have been added or cancelled. Thus, Claims 15-19 and 21-29 remain pending.

Claims 15-19 and 21-29 stand rejected under 35 USC §103(a) as being unpatentable over Kalva in view of Liang. The Applicants respectfully submit that Claims 15-19 and 21-29 are patentable over any theoretical combination of Kalva and Liang for the reasons set forth below.

Independent Claim 15 recites a method for the management of interactions between a peripheral command device and a multimedia application exploiting the standard MPEG-4 to display a scene with MPEG-4 objects.

The method according to Claim 15 includes "constructing a first digital sequence having the form of a BIFS node. The "digital sequence is based on a downstream interaction stream of raw data from the peripheral command device." The BIFS node includes updates, which are based on the raw data, to modify the scene. The BIFS node also includes "a nature of action field and a parameter for action field to be applied to objects of said scene," as well as a flag whose status either enables or prevents an action to be taken into account. The method of Claim 15 further includes "executing the first digital sequence to reflect the one or more updates to modify the scene."

The method of Claim 15 advantageously serves as a mapping between a peripheral device and a scene by receiving events from outside the scene (from a peripheral device, such as a keyboard or mouse) and triggering modifications into the scene. The events from outside the scene are represented in the "downstream interaction stream of raw data." Then, BIFS updates are constructed and executed based on the data carried in the downstream interaction stream to accordingly modify the scene. Thus, the BIFS node of Claim 15 is a sensor node.

Consider an example in which the peripheral device is a mouse. The data in the downstream interaction stream may be, for example, a position of the mouse (X, Y) and a status of the mouse buttons (L, R). Based on the data in the stream, BIFS updates are defined, such as "replace", "delete", or "insert", and the values of X, Y, L, and R replace their payloads.

Kalva is directed to an interactive communication system that is based on the standard MPEG-4. Kalva discusses the use of scene description, object descriptors, and command descriptors for describing scenes, event sources, and event sinks. Kalva notes that BIFS provides the information for scene structure, while object descriptors describe streams that represent audio visual objects and command descriptors associate commands with event sources within nodes of a scene (see the sections "MPEG-4 Scene Description," "Object Descriptors," and "Command Descriptors" of Kalva).

Kalva does not, however, disclose a first digital sequence "based on a downstream interaction of raw data from the peripheral command device" and BIFS scene updates based on the raw data for modifying the scene, as recited in Claim 15. Instead, in Kalva the user interacts with the scene through the use of existing mechanisms, including existing sensor nodes such as the TouchSensor node. The existing sensor nodes trigger routes, on Kalva's Server Route, and a

command is then accordingly sent to a remote server through the CommandRoute node. Thus, Kalva's "commands" are different than the updates to the scene recited in Claim 15.

Moreover, the stream used by Kalva's process is an upstream, whereas Claim 15 recites that "the first digital stream is based on a downstream interaction stream of raw data."

Liang is relied upon for disclosing a flag for enabling or preventing at least one action to be taken into account. (*See* Page 3 of the Office Action of April 3, 2009.) However, the Applicants respectfully submit that Liang fails to remedy the deficiencies noted above with respect to Kalva. Specifically, Liang does not disclose construction of "a first digital sequence" in the form of a BIFS node and based on "a downstream interaction stream of raw data from the peripheral command device." Moreover, Liang also does not disclose that the "BIFS node comprises one or more updates based on the raw data to modify the scene" as well as subsequent execution of the first digital sequence "to reflect the one or more updates to modify the scene."

Thus, the Applicants respectfully submit that Claim 15 is patentable over the combination of Kalva and Liang as both Kalva and Liang fail to disclose construction of "a first digital sequence" in the form of a BIFS node based on "a downstream interaction stream of raw data from the peripheral command device," the BIFS node comprising "one or more updates based on the raw data to modify the scene," and subsequent execution of the first digital sequence "to reflect the one or more updates to modify the scene."

Claims 16-19 and 21-25 are patentable at least due to their dependency on Claim 15, shown above to be patentable. Independent Claim 26 recites computer equipment that includes the features of the first digital sequence and the BIFS node recited in Claim 15. Accordingly, the Applicants respectfully submit that Claim 26 and its dependent Claims 27-29 are patentable for the reasons described above with respect to Claim 15.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,

T. Daniel Christenbury
Reg. No. 31,750
Attorney for Applicants

TDC/vp
(215) 656-3381